



# LAWRENCE LIVERMORE NATIONAL LABORATORY



Lawrence Livermore National Laboratory has a mission to ensure national security and apply science and technology to the important issues of our time.

## Organization

Lab programs are supported by a technical base of 2,737 scientists and engineers and many specialized centers of excellence.

## Vital Statistics

Staff: 8,698      Budget: \$1.6 billion

## Research Fields/ Core Competencies

- Physics and Nuclear Materials
- Advanced Lasers and Optics
- High-Performance Scientific Computing
- Chemistry & Materials Science
- Biology & Biotechnology
- Energy & Environment
- Engineering Development

## Major User Facilities

- National Ignition Facility
- Terascale Simulation Facility
- Center for Accelerator Mass Spectrometry
- Center for Applied Scientific Computing
- Center for Global Security Research
- National Atmospheric Release Advisory Ctr.
- Forensic Science Center
- Biodefense Knowledge Center

## Patents (1996-2003): 647

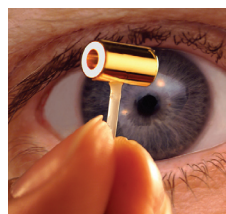
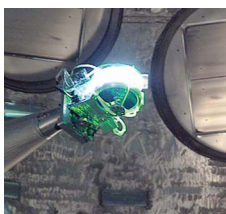
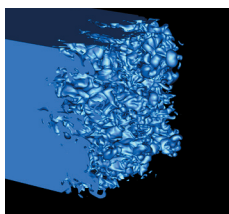
Note: Projects sponsored by the Laboratory Directed Research & Development Program have accounted for almost half of all patents issued for LLNL research over this period.

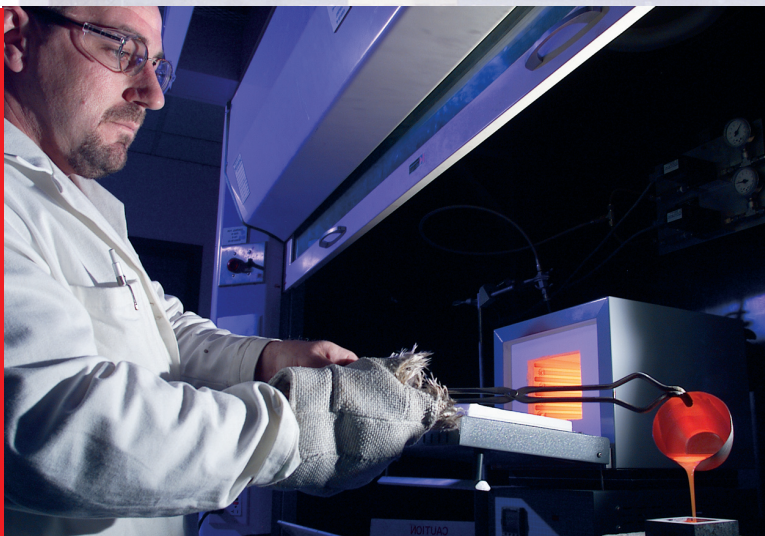
## Publications

Each year, LLNL scientists and engineers publish more than 1,000 papers in peer-reviewed journals, and more than 400 papers in science conference proceedings.

## Recent Research Achievements

- Discovered two new elements: 113 and 115
- Developed technologies to prevent and mitigate terrorist attacks
- Developed a microelectrode array for construction of an artificial retina
- Developed highest resolution global climate simulations to date
- Developed miniature glucose sensor for use in treatment of diabetes





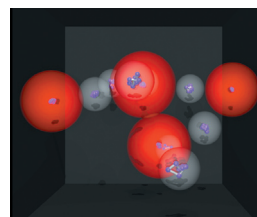
## Awards

- Nobel Prize winner
- Glenn Seaborg Award winner
- Five Enrico Fermi Award winners
- Fullbright Scholar Award winner
- Twenty-five E.O. Lawrence Award winners
- Beatrice Tinsley Prize winner
- 106 R&D 100 Awards
- One Heroes of U.S. Manufacturing Award
- Twenty-five Federal Laboratory Consortium Awards
- MacArthur Award winner
- Three Presidential Early Career Awards for Scientists and Engineers
- Two Secretary of Defense Outstanding Public Service Award winners

## Science Education/Workforce Development

The Laboratory fosters research interactions between students/teachers and the Laboratory's scientific staff and facilities to help ensure a skilled work force to meet the science and technology challenges of the future.

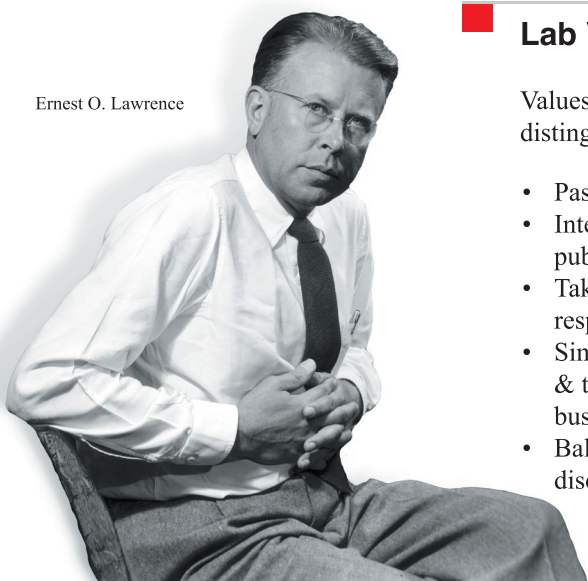
There are currently 151 postdocs and 292 students working at the Laboratory. A survey by *The Scientist* magazine named Lawrence Livermore one of the nation's best workplaces for postdocs.



## Benefit to Society

The Laboratory's benefit to society ranges from advances in national security (nuclear and conventional defense) and energy (fusion power), to health (medical technologies), environment (groundwater cleanup) and national industrial competitiveness (next-generation computer chip manufacture).

Ernest O. Lawrence



## Lab Values

Values that are the hallmarks of Lawrence Livermore National Laboratory, and which distinguish the institution from others.

- Passion for Mission
- Integrity and responsible stewardship of the public trust
- Taking personal and collective responsibility for safety and security
- Simultaneous excellence in science & technology, operations, and business practices
- Balancing innovation with disciplined execution
- Teamwork while preserving individual initiative
- Intense competition of ideas with respect for individuals
- Treating each other with dignity
- A high-quality, motivated workforce with diverse ideas, skills, and backgrounds
- Rewarding and recognizing performance
- Commitment to the collective success of the Laboratory

